

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A digital video service network, comprising:
means for providing a combined digital signal, the combined digital signal having information reflective of a regular program signal and a Banner Information signal;
a receiver for receiving the combined digital signal and a presentation unit for displaying the combined digital signal, the Banner Information being presented to the presentation unit with the regular program;
a controller that controls the presentation unit to display the Banner Information with the regular program upon permission only; and
a channel communicating the combined digital signal from the means for providing a combined digital signal to the receiver.
2. (Currently amended) The network of Claim 1, wherein the means for providing creates a TS packetized combined digital signal, wherein the regular program and the Banner Information are synchronized.
3. (Original) The network of Claim 1, wherein the means for providing a combined digital signal further comprises a first coding unit for coding the regular program signal and a

second coding unit for coding the Banner Information signal, a first TS packetization unit for receiving the coded regular program signal and providing a packetized bit stream reflecting the coded regular program signal and a second TS packetization unit for receiving the coded Banner Information signal and providing a packetized bit stream reflecting the coded Banner Information signal, a TS Packet multiplexer for receiving the packetized regular program signal and the packetized Banner Information signal and providing a multiplexed transport stream, and a channel modulation unit for modulating the transport stream into the combined digital signal and sending the combined digital signal for transmission to the channel.

4. (Original) The network of Claim 1, wherein the receiver further comprises a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Banner Information signal from a user-tuned channel, a TS demultiplexing unit for demultiplexing the regular program bitstream and Banner Information TS packets from the signal received from the channel demodulation unit, a Banner Information TS depacketizer for receiving the Banner Information TS packets from the TS demultiplexing unit and depacketizing the Banner Information TS packets to provide a coded Banner Information signal, a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal, a video reconstruction unit for receiving the rendered Banner Information bitmap video signal and creating an output for the presentation device, Audio/Video decoders for receiving the regular program bitstream from the TS demultiplexing unit, the Audio/Video decoders decoding audio and video coded bit streams of the regular

program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to the video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and the rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously.

5. (Original) The network of Claim 1, wherein the receiver further comprises a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Banner Information signal from a user-tuned channel, and a TS demultiplexing unit for demultiplexing the regular program bitstream and Banner Information TS packets from the signal received from the channel demodulation unit.

6. (Original) The network of Claim 5, wherein the receiver further comprises a Banner Information TS depacketizer for receiving the Banner Information TS packets from the TS demultiplexing unit and depacketizing the Banner Information TS packets to provide a coded Banner Information signal, and a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal.

7. (Original) The network of Claim 5, wherein the receiver further comprises Audio/Video decoders for receiving the regular program bitstream from the TS demultiplexing

unit, the Audio/Video decoders decoding audio and video coded bit streams of the regular program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to a video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and a rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously.

8. (Previously presented) A digital video service network, comprising:

means for providing a TS packetized combined digital signal, the combined digital signal having information reflective of a regular program signal and a Banner Information signal, the means for providing a combined digital signal including a first coding unit for coding the regular program signal and a second coding unit for coding the Banner Information signal, a first TS packetization unit for receiving the coded regular program signal and providing a packetized bit stream reflecting the coded regular program signal and a second TS packetization unit for receiving the coded Banner Information signal and providing a packetized bit stream reflecting the coded Banner Information signal, a TS Packet multiplexer for receiving the packetized regular program signal and the packetized Banner Information signal and providing a multiplexed transport stream, and a channel modulation unit for modulating the transport stream into the combined digital signal and sending the combined digital signal for transmission to the channel;

a receiver for receiving the combined digital signal, the receiver including a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Banner Information signal from a user-tuned channel, a TS demultiplexing unit for demultiplexing the regular program bitstream and Banner Information TS packets from the signal received from the channel demodulation unit, a Banner Information TS depacketizer for receiving the Banner Information TS packets from the TS demultiplexing unit and depacketizing the Banner Information TS packets to provide a coded Banner Information signal, a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal, a video reconstruction unit for receiving the rendered Banner Information bitmap video signal and creating an output for a video presentation device, Audio/Video decoders for receiving the regular program bitstream from the TS demultiplexing unit, the Audio/Video decoders decoding audio and video coded bit streams of the regular program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to the video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and the rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously;

a controller that controls the video reconstruction unit to display the Banner Information with the regular program only upon permission; and
a channel communicating the combined digital signal from the means for

providing a combined digital signal to the receiver.

9. (Previously presented) A method of providing digital television programming to viewers, the method comprising the steps of:

creating a combined digital television signal which combines information reflective of regular programming and information reflective of Banner Information;

transmitting the combined digital television signal over a channel;

receiving the transmitted, combined digital television signal at a receiver;

providing the received, combined digital television signal to a presentation unit such that the information reflective of the regular programming and the information reflective of the Banner Information are displayed simultaneously on the presentation unit;

controlling the presentation unit to display the Banner Information with the regular program only upon permission.

10. (Original) The method of Claim 9, further comprising the step of entering into an agreement with end users which allows for the simultaneous display of the Banner Information and the regular programming on the presentation unit.

11. (Previously presented) The method of Claim 10, wherein the agreement provides for a limitation on the subscription charged to the end users.

12. (Previously presented) The method of Claim 9, further comprising the steps of:
providing a receiver to end user's which receiver:
specifically enables the simultaneous display of the Banner Information and the regular programming on the presentation unit, and
allows controlling the presentation unit to display the Banner Information with the regular program only upon permission.
13. (Original) The method of Claim 9, further comprising the steps of:
demodulating the received combined digital signal and extracting bit streams of a regular program signal and a Banner Information signal from a user-tuned channel;
demultiplexing the regular program bitstream and Banner Information TS packets from the demodulated signal;
depacketizing the Banner Information TS packets to provide a coded Banner Information signal;
decoding the coded Banner Information; and
rendering the coded Banner Information into a bitmap video signal.
14. (Original) The method of Claim 9, further comprising the steps of:
demodulating the received combined digital signal and extracting bit streams of a regular program signal and a Banner Information signal from a user-tuned channel;
demultiplexing the regular program bit stream and Banner Information TS packets

from the demodulated signal;

decoding audio and video coded bit streams of the regular program signal;

sending an audio output signal for transducing into sound;

reconstructing an output video signal from the decoded video output and a signal reflective of the Banner Information signal; and

sending the output video signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously.

15. (Original) The method of Claim 9, wherein the step of creating the combined digital signal further comprises the steps of:

coding a regular program signal and coding a Banner Information signal;

packetizing the coded regular program signal and providing a packetized bit stream reflecting the coded regular program signal;

packetizing the coded Banner Information signal and providing a packetized bit stream reflecting the coded Banner Information signal;

providing a multiplexed transport stream from the packetized regular program signal and the packetized Banner Information signal; and

modulating the transport stream into the combined digital signal and sending the combined digital signal for transmission to the channel.

16. (Previously presented) A receiver for an interactive digital video service network, the receiver comprising:

means for receiving a combined digital signal, the combined digital signal having information reflective of a regular program and a Background Commercial including Banner Information;

means for decoding the combined digital signal and providing a first signal reflective of the regular program and a second signal reflective of the Background Commercial;

means for receiving the second signal reflective of the Background Commercial and providing a signal reflective of the Banner Information of the Background Commercial; and

means for providing a video output signal, the means for providing the video output signal combining information from the first signal reflective of the regular program and the signal reflective of the Banner Information of the Background Commercial.

17. (Previously presented) The receiver of Claim 16, further comprising:

a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Background Commercial signal from a user-tuned channel,

a TS demultiplexing unit for demultiplexing the regular program bitstream and Background Commercial TS packets from the signal received from the channel demodulation unit,

a Banner Information TS depacketizer for receiving the Background Commercial

TS packets from the TS demultiplexing unit and depacketizing the Background Commercial TS packets to provide a coded Banner Information signal,

a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal,

a video reconstruction unit for receiving the rendered Banner Information bitmap video signal and creating an output for a video presentation device,

Audio/Video decoders for receiving the regular program bitstream from the TS demultiplexing unit, the Audio/Video decoders decoding audio and video coded bit streams of the regular program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to the video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and the rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously.

18. (Previously presented) The receiver of Claim 16, further comprising:

a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Background Commercial signal from a user-tuned channel, and

a TS demultiplexing unit for demultiplexing the regular program bitstream and Background Commercial TS packets from the signal received from the channel demodulation

unit.

19. (Previously presented) The receiver of Claim 18, further comprising:
a Banner Information TS depacketizer for receiving the Background Commercial TS packets from the TS demultiplexing unit and depacketizing the Background Commercial TS packets to provide a coded Banner Information signal,

a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal.

20. (Original) The receiver of Claim 18, further comprising:

Audio/Video decoders for receiving the regular program bitstream from the TS demultiplexing unit, the Audio/Video decoders decoding audio and video coded bit streams of the regular program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to a video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and a rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously.

21. (Previously presented) The receiver of claim 16 wherein the Background Commercial further includes Audio-Visual Information, the receiver further including means for

receiving the second signal reflective of the Background Commercial and providing a signal reflective of the Audio-Visual Information of the Background Commercial, wherein the means for providing a video output signal, further combines information from the first signal reflective of the regular program, the signal reflective of the Banner Information of the Background Commercial, and the signal reflective of the Audio-Visual Information of the Background Commercial.

22. (Previously presented) The receiver of claim 22 further comprising:
 - a channel demodulation unit for demodulating the received combined digital signal and extracting bit streams of the regular program signal and the Background Commercial signal from a user-tuned channel,
 - a TS demultiplexing unit for demultiplexing the regular program bitstream and Background Commercial TS packets from the signal received from the channel demodulation unit,
 - a Banner Information TS depacketizer for receiving the Background Commercial TS packets from the TS demultiplexing unit and depacketizing the Background Commercial TS packets to provide a coded Banner Information signal and a coded Audio-Visual Information signal of the Background Commercial,
 - a Rendering Unit for decoding and rendering the coded Banner Information into a bitmap video signal,
 - a video reconstruction unit for receiving the rendered Banner Information bitmap

video signal and creating an output for a video presentation device,

a selector for receiving the regular program bitstream from the TS demultiplexing unit and coded Audio-Visual Information signal of the Background Commercial, the selector selecting between the regular program bitstream and the coded Audio-Visual Information signal, in response to a control signal,

Audio/Video decoders for receiving from the selector either:

(1) the regular program bitstream and decoding audio and video coded bit streams of the regular program signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to the video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and the rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the regular program and the Banner Information are displayed simultaneously, or

(2) the coded Audio-Visual Information signal and decoding the Audio-Visual Information signal, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal to the video reconstruction unit, the video reconstruction unit reconstructing an output video signal from the decoded video output and the rendered Banner Information bitmap video signal, the video reconstruction unit sending the video output signal to the video presentation device for display where the Visual Information signal of the Background Commercial and the Banner Information are displayed simultaneously.

23. (Previously presented) The receiver of claim 16 further comprising a storage unit that:

records the regular program bitstream when the Visual Information signal of the Background Commercial is selected and displayed, such that the end user can later view the regular program, and

records the Audio-Visual Information signal when the regular program is selected and displayed, such that the end user can later view the Audio-Visual Information signal.

24. (Previously presented) The receiver of claim 16 wherein the Background Commercial further includes Audio-Visual Information, the receiver further including:

means for receiving the second signal reflective of the Background Commercial and providing a signal reflective of the Audio-Visual Information of the Background Commercial, and

means for storing the Audio-Visual Information for later display on the presentation unit.

25. (Previously presented) The network of claim 1 further comprising:
a monitor that monitors, and records information about, end user habits in viewing of the Banner Information.

26. (Currently amended) The network of claim [[1]] 25 wherein the monitor further provides said user viewing habit information to a provider of the Banner Information via a return channel.

27. (Currently amended) The network of claim [[1]] 26 wherein the monitor utilizes said viewing information in selecting future Banner Information.

28. (Previously presented) The network of claim 1 wherein said permission is provided by an user who is a viewer of the regular program.

29. (Previously presented) The network of claim 1 wherein if there is no permission the controller controls the presentation unit to display the regular program without the Banner Information.

30. (Previously presented) The network of claim 1 further including a user interface for interacting with an end user to provide said permission to the controller.

31. (Previously presented) The network of claim 30 wherein said user interface allows a end user to revoke said permission from the controller.

32. (Previously presented) The network of claim 31 further comprising a storage unit that when the end user revokes said permission, records the Banner Information for later playback and user viewing.